To carry out this modification the case halves need to be split.

d. **Hitachi.** This is the standard alternator fitted to Yanmar engines (Models LR 135-74 35A, LR 155-20 55A and LR 135-105 35A). Use the following procedure:

1. Remove the rear casing from the alternator. The screws are generally torqued extremely tight, so use the correct screwdriver size.
2. Carefully cut off the connections to the existing regulator. There are 5 in total.
3. Solder a 1.5 mm bridging wire between the R and F terminals, as illustrated.
4. Replace the rear casing.
5. Connect the external field connection to the socket at the rear of the alternator. A cable and plug are normally fitted and can be removed.

![Diagram of Hitachi Alternator](image-url)
Remove stator coil and brush block

With a small hacksaw, cut the links to the internal regulator

Solder a wire to R and F

Reassemble alternator, hold brushes back with a toothpick or similar small pin

Pin description

R = not used

R = Bottom plug connector to here, which then becomes FIELD for N Switching

L = Bottom brush and light

F = top brush (ZM4)

E = earth

Existing regulator and cut links

Label plug connections like the above

Plug connection – BU/BK (blue with black pin stripe) = Charge lamp

RD/BK (Red with a black pin stripe) = Ignition key, excitation